COMPARATIVE STUDY OF EPIDURAL DEXMEDETOMIDINE AND ROPIVACAINE WITH EPIDURAL CLONIDINE AND ROPIVACAINE FOR INTRAOPERATIVE AND POSTOPERATIVE PAIN RELIEF IN INGUINAL HERNIA SURGERIES

ABSTRACT

Introduction: Effective pain control is crucial for optimal care of surgical patients. The use of epidural analgesia for the managing of post-operative pain has developed as a precarious component of multi modal approach to attain sufficient analgesia with enhanced outcome. Epidural analgesia offers more post-operative pain relief compared with systemic drugs. Along with better pain control, epidural analgesia also can improve patient outcome by reducing harmful post-operative stress. Keeping their pharmacologic relations and other properties we planned to do a single blinded prospective randomized clinical controlled study at our institution in patients who underwent surgery for inguinal hernia under general anaesthesia with an aim to compare the analgesic and sedative effect of dexmeditomedine and clonidine given via epidural route as an adjuvant to ropiacaine.

Aims & Objectives: To evaluate and compare the onset and duration of analgesia after adding dexmeditomedine and clonidine with ropivacaine and also to compare the sedative effects of dexmeditomedine and clonidine without giving any other sedative drugs during intra and post-operative period.

Methodology: This is a prospective randomised double blinded interventional study done in 60 adult male patients who were divided in to 2 groups with 30 patients in each group. Adult male patients with height 155 to 170 cms and Age between 40 to 60 yrs with ASA physical status I and II who are to undergo surgery for inguinal hernia were included in the study. Patients having bleeding and coagulation disorder, Hypertension, Cardiac disease, Infection at the epidural site, Hepatic and renal diseases, severe anaemia were excluded.

Observation & Results:

The mean duration of analgesia was 11.25 hrs in dexmeditomedine group and 7.68 hrs in clonidine group. This was statistically significant ($P<0.05$). Sedation was also better maintained in dexmeditomedine group ehich was analysed using Ramsey sedation score. There was no difference in pain score at initial stages but as time progresses pain score was higher in clonidine group and found to be statistically significant ($p>0.05$), this was analysed using VAS score. Both groups showed hemodynamic stability but it was much better in dexmeditomedine patients without any sided effects. The adverse effect profile was also better in dexmeditomedine group.

Conclusion: To conclude that dexmedetomidine seems to be a better adjuvant to epidural ropivacaine in maintaining analgesia. It has exceptional quality of post-operative analgesia and a prolonged duration of arousable sedation with little adverse effects. The hemodynamic parameters was well maintained with

dexmedetomidine. Overall the efficiency with dexmedetomidine was quite satisfactory as compared to clonidine because of its superior sedative, anxiolytic properties and analgesic properties.

Keywords: Dexmeditomedine. Ropivacaine, VAS score, Analgesia